# U.S. Department of Transportation Office of the Secretary

of Transportation

## DOCKET FILE COPY ORIGINAL

GENERAL COUNSEL

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February 29, 2000

Ms Magalie Roman Salas Office of the Secretary Federal Communications Commission The Portals 445 12<sup>th</sup> Street, S.W. Washington, D.C. 20554

FEB 2 9 2000

Re: ET Docket No. 98-80

Dear Madame Secretary:

Enclosed please find an original and nine copies of the Comments of the United States Department of Transportation in the above-referenced proceeding.

There is also an additional copy that I request be date-stamped and returned to the messenger.

Respectfully submitted,

Paul Samuel Smith Senior Trial Attorney

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**Enclosures** 

No. of Copies rec'd OtS List A B C D E Before the FEDERAL COMMUNICATIONS COMMISSION Washington D.C. 20554

In the Matter of

1998 Biennial Regulatory Review Conducted Emissions Limits for Equipment Regulated under Parts 15 and 18 of the Commission's Rules

ET Docket No. 98-80

### **COMMENTS OF THE UNITED STATES** DEPARTMENT OF TRANSPORTATION

#### <u>Introduction</u>

The Federal Communications Commission (FCC or Commission) in this proceeding has proposed to adopt international conducted emission standards in place of its current (domestic) standards. Notice of Proposed Rulemaking, released October 18, 1999 (NPRM). Conducted emission standards restrict the energy, and thus the interference, generated by electrical devices. The international standards were developed by the International Electrotechnical Commission (IEC) and the International Special Committee on Radio Interference (CISPR). They specify conducted emission limits from 9 kHz to 30 MHz, which extend beyond the typical FCC frequency range of 450 kHz to 30 MHz. The United States Department of Transportation (DOT or Department) supports the Commission's proposal. As discussed herein, extension of conducted emission standards below 450 kHz is warranted to protect new and existing uses in this region of the spectrum.

#### Discussion

The Department has reviewed the comments submitted on this matter and wishes to respond to some of those offered by the American National Standards Institute (ANSI) Accredited Standards Committee C63 on Electromagnetic Compatibility (C63) and the Information Technology Industry Council (ITI). Most important overall is that both of these parties generally supported the Commission's proposal. However, C63 also indicated that several of its members from the manufacturing sector objected on the basis that no need had yet been established for the additional protection embodied in the NPRM. Comments of C63, filed February 2, 2000, at page 4. The ITI recommended that "existing products which have been qualified to the existing FCC limits for

power line conducted emissions from 450 kHz to 30 MHz should be 'grand-fathered' indefinitely ..." Comments of ITI, filed January, 11, 2000, at page 1. DOT disagrees with both of these positions.

The Department uses portions of the spectrum below 450 kHz for systems providing navigation to safety-of-life transportation operations at sea, in the air, and on land. These systems enhance the safety and efficiency of the national transportation infrastructure. Any unexpected loss of the precise navigation or communications involved brings with it the potential for an adverse incident, which may result in the loss of human life, damage or loss of vehicles and their cargo, degradation of the surrounding environment, and harm to the economy of the affected region. The following discussion outlines the importance of emission standards to restrict interference in the relevant portion of the radio spectrum.

The U.S. Coast Guard (USCG) operates the Maritime Differential Global Positioning System (DGPS) Service, which broadcasts accuracy corrections and system warning messages between 285 and 325 kHz from 63 U.S. terrestrial sites in order to provide more precise positioning than is currently available from GPS satellites. These broadcasts are continuous and cover all of the nation's maritime regions, including coastal areas, the Great Lakes, and inland waterways. The Maritime DGPS Service supports mariners navigating near maritime hazards and other vessels in restricted waterways, such as during harbor entrance and approach. DGPS is used for navigation on inland rivers, positioning aids-to-navigation, and providing vessel traffic system control. Automatic Identification System transponders using DGPS will soon be installed on commercial vessels operating in inland and coastal waters of the U.S.

The USCG also operates the Loran-C radionavigation system in the 90-110 kHz frequency band from 24 stations in the United States. Loran-C broadcasts provide navigation, location, and timing services for air, land, and marine users in the continental U.S., Alaska, and their coastal waters. DOT is currently evaluating the long-term need for Loran-C.

The Federal Railroad Administration (FRA) is in the process of expanding coverage of the Coast Guard DGPS service to the entire continental United States. See 64 Fed. Reg. 7813, February 17, 1999. This Nationwide DGPS (NDGPS) utilizes the frequency band from 285 to 325 kHz for accuracy correction and warning broadcasts as described above for the Coast Guard. The NDGPS is required to enable the FRA's ongoing Positive Train Control (PTC) safety initiative. See Federal Railroad Administrator, Report To Congress: The Department of Transportation on Civilian Use of the Global Positioning System (GPS), the Nationwide Differential Global Positioning System and Additional Civilian GPS Signals, July 1, 1999, p. 1. PTC has been on the National

Transportation Safety Board's list of "Most Wanted" safety initiatives since October 14, 1970. [http://www.ntsb.gov/recs/total\_list.htm] PTC has stringent technical availability requirements that the NDGPS will meet by providing double coverage of the broadcast to the nation's rail infrastructure. This means that every point on the rail infrastructure will receive a broadcast from two different NDGPS stations. DOT seeks to meet this requirement with the fewest NDGPS stations possible (estimated at 65) in order to minimize the number of transmissions necessary. Therefore, the system is dependent upon the low-level signals farther from the transmitting stations, and protection of these signals is necessary.

Finally, the U.S. Coast Guard and the Federal Aviation Administration (FAA) operate marine and aeronautical nondirectional beacons (NDB) in the 190-435 kHz and the 510-535 kHz frequency bands. Radiobeacons remain as a backup to more sophisticated radionavigation systems, and as a low-cost, medium accuracy system for vessels equipped with only minimal radionavigation equipment. Aeronautical nondirectional beacons are used throughout the national airspace system for transition from en route to precision terminal approach facilities, and as nonprecision approach aids at many airports. In addition, some state- and locally-owned beacons are used to provide weather information to pilots.

DOT submits that the existing uses and expanding future use of these domestic radionavigation systems support the extension of conducted emission limits below 450 kHz, as proposed by the Commission. These same considerations support establishing only a finite period for emitters to be brought into compliance with the new standards, rather than allowing indefinite "grandfathering." DOT supports the three year period proposed by the FCC in the NPRM for all equipment imported or manufactured to comply with the new standards.

#### Conclusion

The Department agrees with the Commission that "limits below 450 kHz are warranted to protect new and existing uses for this region of the spectrum." NPRM, para. 25. We therefore strongly support the Commission's proposal and urge it to adopt the international CISPR limits in place of the current conducted emission standards. It is essential that the critical safety-of-life systems operated by agencies within DOT be protected.

Respectfully submitted,

Nancy E. McFadden GENERAL COUNSEL